



WASTE MANAGEMENT

601 Madison Road
East St Louis, IL 62201
(618) 271-6788
(618) 271-1227 Fax

July 7, 2015

Mr. Eric Jones, Manager
Illinois Environmental Protection Agency
Bureau of Air – Compliance Section #40
1021 North Grand Avenue East
Springfield, Ill 62702

163075AAL – St. Clair County
Cottonwood Hills Recycling and Disposal Facility

NSPS Semi-Annual Report for Period January 1, 2015 to June 30, 2015

Dear Mr. Jones:

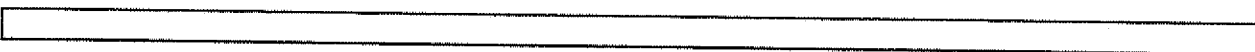
This letter transmits the NSPS Semi-Annual Report for the above referenced reporting period at the above referenced facility.

If you have any questions or require additional information, please call me at (314) 568-2025.

Sincerely,
Waste Management of Illinois, Inc.

A handwritten signature in cursive script, reading 'Ernest H. Dennison'.

Ernest H Dennison, PE
District Engineer

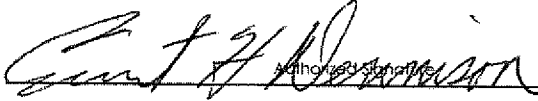


From everyday collection to environmental protection, Think Green® Think Waste Management.

SIGNATURE BLOCK FOR RESPONSIBLE OFFICIAL

I, the undersigned, hereby certify under penalty of law that I am a responsible official and that I have personally examined, and am familiar with, the information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the information is on knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false or incomplete information, including the possibility of fine or imprisonment.

BY:



Ernest Dennison
Typed or Printed Name of Signatory

Date

7/7/15

District Engineer
Title of Signatory

cc: IEPA – Collinsville Field Office
2009 Mall Street
Collinsville, Illinois 62234

WM01610



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL -- PERMIT SECTION
P.O. BOX 19506
SPRINGFIELD, ILLINOIS 62794-9506

FOR APPLICANT'S USE

Revision #: _____
Date: ____ / ____ / ____
Page ____ of ____
Source Designation: _____

**COMPLIANCE AND GENERAL
REPORTING FORM**

FOR AGENCY USE ONLY

ID NUMBER: _____

PERMIT #: _____

DATE: _____

THIS FORM IS USED FOR EITHER OF THE FOLLOWING:

- TO REPORT AND CERTIFY COMPLIANCE OF AN ENTIRE SOURCE OR SPECIFIC ITEMS OF EQUIPMENT WITH ALL APPLICABLE REQUIREMENTS DURING A REPORTING PERIOD, OR
- TO IDENTIFY AND ENSURE PROPER PROCESSING OF A SUBMITTED REPORT. THIS FORM SHOULD BE USED AS THE COVER SHEET OF THE SUBMITTED REPORT.

SOURCE INFORMATION

1) SOURCE NAME:

Cottonwood Hills Recycling and Disposal Facility

2) DATE FORM
PREPARED:

July 2015

3) SOURCE ID NO.
(IF KNOWN):

163075AAL

GENERAL INFORMATION

4) INDICATE FOR WHICH OF THE FOLLOWING THIS FORM IS BEING COMPLETED:

☒ TO REPORT AND CERTIFY COMPLIANCE OF THE SOURCE OR SPECIFIC ITEMS OF EQUIPMENT
WITH ALL APPLICABLE REQUIREMENTS

☐ TO IDENTIFY AND ENSURE PROPER PROCESSING OF A SUBMITTED REPORT

5) PERIOD COVERED BY THIS REPORT:

FROM: **01 / 01 / 2015**

TO: **06 / 30 / 2015**

6) NAME AND PHONE NUMBER OF PERSON TO CONTACT FOR QUESTIONS REGARDING THIS REPORT:

NAME: **Ernest Dennison**

TITLE: **District Engineer**

PHONE#: **(314) 568-2025**

THIS AGENCY IS AUTHORIZED TO REQUIRE THIS INFORMATION UNDER ILLINOIS REVISED STATUTES, 1991, AS AMENDED 1992, CHAPTER 111 1/2, PAR. 1039.5. DISCLOSURE OF THIS INFORMATION IS REQUIRED UNDER THAT SECTION. FAILURE TO DO SO MAY PREVENT THIS FORM FROM BEING PROCESSED AND COULD RESULT IN THE APPLICATION BEING DENIED. THIS FORM HAS BEEN APPROVED BY THE FORMS MANAGEMENT CENTER.

APPLICATION PAGE

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COMPLIANCE OF SOURCE OR EQUIPMENT DURING REPORTING PERIOD

- COMPLETE ITEM 7 BELOW IF THIS FORM IS BEING USED TO REPORT AND CERTIFY COMPLIANCE OF THE ENTIRE SOURCE.
- COMPLETE ITEM 8 BELOW IF THIS FORM IS BEING USED TO REPORT AND CERTIFY COMPLIANCE OF SPECIFIC ITEMS OF EQUIPMENT ONLY.

7) WAS THE SOURCE IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS FOR THE ENTIRE REPORTING PERIOD?



YES



NO

IF YES, THEN THE "REPORT INFORMATION" SECTION ON PAGE 3 OF THIS FORM DOES NOT NEED TO BE COMPLETED.

IF NO, THEN COMPLETE AND SUBMIT FORM CAAPP-405 - "EXCESS EMISSIONS, MONITORING EQUIPMENT DOWNTIME, AND MISCELLANEOUS REPORTING FORM."

8a) LIST THE EMISSION UNIT(S) AND CONTROL EQUIPMENT FOR WHICH THIS FORM IS BEING COMPLETED TO REPORT AND CERTIFY COMPLIANCE WITH (IF ADDITIONAL SPACE IS NEEDED FOR ITEM 10, ATTACH AND LABEL AS EXHIBIT 400-A):

See Attached Report.

b) IDENTIFY THE APPLICABLE REQUIREMENT(S) FOR WHICH THIS FORM IS BEING USED TO REPORT AND CERTIFY COMPLIANCE WITH:

See Attached Report.

c) IDENTIFY THE APPLICABLE REQUIREMENT(S) WHICH REQUIRE THAT THIS REPORT OR CERTIFICATION BE SUBMITTED:

Semi-Annual NSPS Report

d) WERE THE ABOVE REFERENCED ITEMS IN 8(a) IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS FOR THE ENTIRE REPORTING PERIOD?



YES



NO

IF YES, THEN THE "REPORT INFORMATION" SECTION ON PAGE 3 OF THIS FORM DOES NOT NEED TO BE COMPLETED.

IF NO, THEN COMPLETE AND SUBMIT FORM CAAPP-405 - "EXCESS EMISSIONS, MONITORING EQUIPMENT DOWNTIME, AND MISCELLANEOUS REPORTING FORM."

APPLICATION PAGE

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Page 2 of 3

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REPORT INFORMATION

9) TITLE OF REPORT BEING SUBMITTED:

NSPS Semi-Annual Report

10) IDENTIFY THE APPLICABLE REQUIREMENT(S) WHICH REQUIRES THIS REPORT (IF APPLICABLE):

40 CFR 60.757(f) NSPS

11) BRIEFLY EXPLAIN WHAT THIS REPORT COVERS:

This Semi-Annual NSPS Report is a summary of any exceedences of monitored parameters, periods of downtime for gas collection/control devices, and any expansions/modifications to the gas collection system.

12) ATTACH THE REPORT TO THIS FORM.

See Attached Report**SIGNATURE BLOCK**

NOTE: THIS CERTIFICATION MUST BE SIGNED BY A RESPONSIBLE OFFICIAL. APPLICATIONS WITHOUT A SIGNED CERTIFICATION WILL BE RETURNED AS INCOMPLETE.

13) I CERTIFY UNDER PENALTY OF LAW THAT, BASED ON INFORMATION AND BELIEF FORMED AFTER REASONABLE INQUIRY, THE STATEMENTS AND INFORMATION CONTAINED IN THIS APPLICATION ARE TRUE, ACCURATE AND COMPLETE.

AUTHORIZED SIGNATURE:

BY:


AUTHORIZED SIGNATUREDISTRICT ENGINEER
TITLE OF SIGNATORYERNEST H DENNISON

TYPED OR PRINTED NAME OF SIGNATORY

7 / 7 / 15
DATE**APPLICATION PAGE**

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WM01613



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL -- PERMIT SECTION
P.O. BOX 19506
SPRINGFIELD, ILLINOIS 62794-9506

FOR APPLICANT'S USE

Revision #: _____
Date: ____ / ____ / ____
Page ____ of ____
Source Designation: _____

**DELEGATION OF AUTHORITY
FOR RESPONSIBLE OFFICIAL
TO A REPRESENTATIVE**

FOR AGENCY USE ONLY

ID NUMBER: _____

PERMIT #: _____

DATE: _____

THIS FORM SHALL BE USED BY A RESPONSIBLE OFFICIAL TO DELEGATE AUTHORITY TO A REPRESENTATIVE OF SUCH PERSON FOR SIGNATURE ON APPLICATIONS OR CERTIFICATION OF REPORTS TO BE SUBMITTED PURSUANT TO THE CLEAN AIR ACT.

THIS FORM SHALL ONLY BE USED FOR A CORPORATION AT WHICH A PRESIDENT, SECRETARY, TREASURER, OR VICE-PRESIDENT OF THE CORPORATION IN CHARGE OF BUSINESS FUNCTION, OR ANY OTHER PERSON WHO PERFORMS SIMILAR POLICY OR DECISION MAKING FUNCTIONS FOR THE CORPORATION TO TRANSFER THE AUTHORITY AS A RESPONSIBLE OFFICIAL TO A REPRESENTATIVE OF SUCH PERSON. THE REPRESENTATIVE OF SUCH PERSON MUST BE RESPONSIBLE FOR THE OVERALL OPERATION OF ONE OR MORE MANUFACTURING, PRODUCTION, OR OPERATING FACILITIES APPLYING FOR OR SUBJECT TO A PERMIT.

NOTE: THIS TRANSFER OF DELEGATION OF AUTHORITY IS APPLICABLE ONLY IF THE FACILITY EMPLOYS MORE THAN 250 PERSONS OR HAS A GROSS ANNUAL SALES OR EXPENDITURES EXCEEDING \$25 MILLION (IN SECOND QUARTER 1980 DOLLARS).

SOURCE INFORMATION

1) SOURCE NAME: Cottonwood Hills Recycling and Disposal Facility

2) DATE FORM
PREPARED: _____

3) SOURCE ID NO.
(IF KNOWN): 163075AAL

TRANSFER OF AUTHORITY

4) I, THE UNDERSIGNED, BEING A PRESIDENT, SECRETARY, TREASURER, OR VICE-PRESIDENT OF THE CORPORATION IN CHARGE OF BUSINESS FUNCTION, OR OTHER PERSON WHO PERFORMS SIMILAR POLICY OR DECISION MAKING FUNCTIONS FOR THE CORPORATION, HEREBY TRANSFER THE AUTHORITY AS A RESPONSIBLE OFFICIAL TO Ernest H Dennison, THEY BEING A REPRESENTATIVE AND RESPONSIBLE FOR THE OVERALL OPERATION OF ONE OR MORE MANUFACTURING, PRODUCTION, OR OPERATING FACILITIES APPLYING FOR OR SUBJECT TO A PERMIT.

AUTHORIZED SIGNATURE

Michael J Watson

TYPED OR PRINTED NAME OF SIGNATORY

President of Waste Management of Illinois
TITLE OF SIGNATORY

16 / 13 / 14
DATE

Ernest H Dennison

DELEGATED REPRESENTATIVE

District Engineer

TITLE OF DESIGNATED REPRESENTATIVE

THIS AGENCY IS AUTHORIZED TO REQUIRE THIS INFORMATION UNDER ILLINOIS REVISED STATUTES, 1991, AS AMENDED 1992, CHAPTER 111 1/2, PAR. 1039.5, DISCLOSURE OF THIS INFORMATION IS REQUIRED UNDER THAT SECTION. FAILURE TO DO SO MAY PREVENT THIS FORM FROM BEING PROCESSED AND COULD RESULT IN THE APPLICATION BEING DENIED. THIS FORM HAS BEEN APPROVED BY THE FORMS MANAGEMENT CENTER.

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**COTTONWOOD HILLS
RECYCLING AND DISPOSAL FACILITY
NSPS SEMI-ANNUAL REPORT**

**For the Reporting Period
01/01/15 to 06/30/15**

**Prepared By
Waste Management of Illinois, Inc.**

July 2015

1.0 Introduction

This document consists of the semi-annual report for Cottonwood Hills Recycling and Disposal Facility in Marissa, Illinois and has been prepared in accordance with 40 CFR 60.757(f). This report covers the period of gas system operations from January 1, 2015 to June 30, 2015.

Documented in this report are exceedances of monitored parameters under 40 CFR 60.756, periods of downtime for gas collection/control devices, and any expansions/modifications to the gas collection system during the reporting period. The report is organized into three main sections: Collection systems, Control Devices and Landfill.

The gas collection system currently in place at the site consists of 26 vertical gas collection wells and temporary gas collection trenches. The wells and trenches are connected to the gas collection laterals and header pipe which leads to a 3000 scfm open flare (control device).

The gas mover equipment is comprised of a blower at the flare station.

2.0 Collection System Summary

2.1 Exceedance of Monitored Parameters

Gauge Pressure at each Gas Collection Wellhead (40 CFR 60.756 (a)(1))

- Report all instances of positive pressure measured at the gas collection header of each individual wellhead, including value and length of time measured.
- Per 40 CFR 60.753 (b), record instances when positive pressure occurred at a wellhead in an effort to avoid a landfill fire.

Based on a review of the data, any positive pressure exceedances which were detected had a corrective action (adjusted wellhead vacuum) initiated within 5 days and was fixed within 15 days, additional correction action, have a variance request (approved or pending), or had the well and/or system header repaired/replaced within 120 days (system expansion). Therefore, these wells are considered to be in compliance (See Exceedance Report in Attachment 1).

Monthly Oxygen or Nitrogen Concentration at Each Gas Collection Wellhead (40 CFR 60.756(a)(2))

- Report all instances, on a per well basis, when nitrogen concentrations exceeded 20% or oxygen concentrations exceed 5%. Report date, value and length of time of each exceedance.

- Detail action taken within 5 days to correct exceedance. Report date that exceedance was corrected (must be less than 15 days).

Based on a review of the data, any oxygen reading in excess of the regulatory limits of 5% had a corrective action (adjusted wellhead vacuum) initiated within 5 days and was fixed within 15 days, additional correction action, have a variance request (approved or pending), and/or had the well and/or system header repaired/replaced within 120 days (system expansion). Therefore, these wells are considered to be in compliance (See Exceedance Report in Attachment 1). Please note that gas collection well MW03R was decommissioned during the reporting period and a minor modification submitted to the IEPA-BOA due to minimal gas generation in the well. A variance approval from the USEPA for an alternative operating procedure for low flow well MW03R was received after the decommissioning (See Attachment 2).

Temperature of the landfill gas at each wellhead (40 CFR 60.756(a)(3))

- Report all instances, on a per well basis, when landfill gas temperature exceeded 55°C (131°F).
- Detail action taken within 5 days to correct exceedance. Report date that exceedance was corrected (must be less than 15 days).

There were multiple instances of a temperature exceeding 131°F as measured at the wellhead during the reporting period (See Exceedance Report in Attachment 1). These wells had a corrective action (adjusted wellhead vacuum) initiated within 5 days and were fixed within 15 days, had additional correction action, have a variance request (approved or pending), and/or had the well and/or system header repaired/replaced within 120 days (system expansion). Therefore, these wells are considered to be in compliance.

2.2 Record of Operation

Description and duration of all periods when the gas stream from the collection system was diverted from the control device through a bypass line (40 CFR 60.756(b)(2)) for enclosed flare, engines or turbines, or 40 CFR 60.756(c) for utility flares).

The gas collection system at Cottonwood Hills RDF does not have a bypass line. Therefore, there were no periods of time that flow was diverted through a bypass line. All flow was directed to the permitted control device (open flare).

Description and duration of all periods when the collection system was not operating for more than 5 days.

There was no period of time during which the collection system was not operating for more than 5 days during the reporting period.

2.3 Record of Expansion

Date and location of all newly installed wells or collection system expansion (40 CFR 60.757(f)(6)).

There were no new gas collection wells installed during the reporting period.

3.0 Control Device Summary

3.1 Monitored Parameters

Flare Flame (Utility Flare)

- Report all periods of flare flame absence (40 CFR 60.758(c)(4)).

The open flare at Cottonwood Hills RDF is equipped with a thermocouple to continuously determine that a flame is present via temperature. Upon loss of flame (drop in temperature), the thermocouple automatically shuts down the blower.

In addition, the blower inlet control valve is automatically closed to prevent uncontrolled discharge. The lack of a flame at the flare is not indicative of an emissions exceedance, since the system will not operate when a flame is not present.

Flow (Utility Flare)

- Report all periods during which the control device was not operating for more than one hour; report duration of each event (40 CFR 60.757(f)(3)).

A Table of periods when the control device (open flare) was not operating for more than one hour is provided in Attachment 3. No raw landfill gas was emitted through the control device during the downtime. Therefore, the control device did not allow emissions of raw landfill gas for more than one hour.

3.2 Performance Testing

Performance Test (Utility Flare)

- Complete initial/annual performance test on the open flare in accordance with IEPA-BOA Construction Permit application number 06100058.

The performance test for 2014 was submitted on October 15, 2014. The performance test for 2015 will be submitted in the Fall 2015.

4.0 Landfill Summary

4.1 Monitored Parameters

Surface Scan

- Report the location of each exceedance of the 500 ppm methane concentration, and the concentration recorded at each exceedance location (40 CFR 60.757(f)(5)).

The quarterly methane surface scans were conducted at the facility as required. A Table of exceedances is provided in Attachment 4. Any exceedances were corrected and re-monitored within the required timeframes.

Semi-Annual Sampling/Analysis

- Perform semi-annual sampling and analysis of landfill gas entering the control system in accordance with IEPA-BOA application number 06100058.

Sampling and analysis of the landfill gas is conducted in conjunction with the performance test for the flare. The results are submitted with the flare performance test report.

ATTACHMENT 1

COTTONWOOD HILLS RECYCLING AND DISPOSAL FACILITY
WELLHEAD PERFORMANCE COMPLIANCE AND CORRECTIVE ACTION
FOR JANUARY 1, 2015 to JUNE 30, 2015 REPORTING PERIOD

Well	Date	Temp	Pw	CH4%	CO2%	O2%	Date	Corrective Action	Temp	Pw	CH4%	CO2%	O2%	CO
MW03R	03/18/15	96	-5.9	0.6	1.9	21.1	03/18/15	Wellhead Pw adjusted but low methane		-3.4				
MW03R	04/01/15	91	-2.1	0.0	0.1	21.5	04/01/15	Wellhead Pw adjusted but low methane		-1.2				
MW03R	04/09/15	Well decommissioned and minor modification submitted to IEPA-BOA												
MW11	03/18/15	46	-32.6	7.9	6.1	18.8	03/18/15	Wellhead Pw adjusted		-10.8				
MW11	04/01/15	83	-33.4	57.0	36.9	0.6	04/01/15	Well Oxygen below regulatory limit		-35.1				
MW14R	06/29/15	76	-10.7	1.6	3.4	20.6	06/29/15	Wellhead Pw adjusted		-0.1				
MW14R	07/02/15	94	-0.2	54.2	45.7	0.0	07/02/15	Well Oxygen below regulatory limit		-0.3				
MW77	02/25/15	62	9.8	57.0	42.7	0.1	02/25/15	Wellhead Pw adjusted	79	5.8				
MW77	03/03/15	112	-3.0	56.3	43.0	0.6	03/03/15	Well under vacuum now	112	-3.3				
MW77	03/18/15	60	1.7	56.6	43.3	0.0	03/18/15	Wellhead Pw adjusted	61	1.1				
MW77	04/01/15	93	-9.9	57.1	42.8	0.0	04/01/15	Well under vacuum now	100	-11.0				
MW77	05/27/15	90	3.7	56.5	43.1	0.0	05/27/15	Wellhead Pw adjusted	87	0.9				
MW77	06/03/15	103	-1.1	55.8	44.1	0.0	06/03/15	Well under vacuum now	99	-1.4				
MW80R	06/29/15	138	-32.8	54.6	45.2	0.0	06/29/15	Wellhead Pw adjusted	129	-14.9				

Action shall be initiated to correct the exceedence within 5 calendar days. If correction of the exceedence can not be achieved within 15 calendar days of the first measurement, the gas system shall be expanded if temperature exceeds 55 Celcius, wellhead pressure Pw is positive, Nitrogen is 20% or above, or Oxygen is 5% or above.

ATTACHMENT 2



WASTE MANAGEMENT

601 Madison Road
East St Louis, IL 62201
(618) 271-6788
(618) 271-1227 Fax

April 9, 2015

Mr. Ray Pilapil, Manager
Illinois Environmental Protection Agency
Bureau of Air – Permit Section
1021 North Grand Ave. East
Springfield, Illinois 62702

Minor Permit Modification (MW03R Well Decommissioning) - CAAPP Permit No. 01040051
Cottonwood Hills Recycling and Disposal Facility - Source ID No: 163075AAL

Dear Mr. Pilapil:

Attached please find a Minor Permit Modification to the CAAPP Permit 01040051 for the Cottonwood Hills Recycling and Disposal Facility issued on December 23, 2014.

The purpose of this Minor Permit Modification is to decommission one landfill gas extraction well (Well MW03R) due to declining gas quality and flow rates and a temporary gas collection trench (GT03) since it was installed only as a temporary control device. The original well MW03 was installed in 2007 and gas quality and flow declined since it was installed and it was subsequently replaced by MW03R in 2014. The replacement well MW03R had no improvement in gas quality and flow and any attempt to increase vacuum only pulled in air since there was minimal gas generation. Pursuant to IEPA Compliance Section guidance, this decommissioning request should be submitted as a Minor Modification since approvals for the Landfill Gas Collection and Control System Design Plans are handled through the Permit Section. It is my understanding that the change is effective as of the date of filing.


The following items are included in this Minor Permit Modification Application:

- CAAPP Form 271- Minor Permit Modification for CAAPP Permit
- CAAPP Form 505 – Supplement to CAAPP Application
- Updated Map of Cottonwood Hills RDF Gas Collection System

There are no changes to the facility's emissions as a result of this modification.

If you have any questions, please contact me at (314) 568-2025.

Sincerely,
Waste Management of Illinois, Inc.



Ernest H. Dennison, P.E.
District Engineer

cc: IEPA Collinsville Field Office

From everyday collection to environmental protection, Think Green.® Think Waste Management.

COTTONWOOD HILLS RECYCLING AND DISPOSAL FACILITY
LANDFILL GAS EXTRACTION WELL MW03R

Device ID	Date Time	CH4 %	CO2 %	O2 %	Initial Static Pressure ("H2O)	Initial Temperature (Deg F)	Adjusted Temperature (Deg F)	Adjusted Static Pressure ("H2O)	Initial Flow SCFM	Adjusted Flow SCFM
MW03R	7/15/2014 10:07	0.4	0.6	21.1	-2.5	86	81	-2.3	15	14
MW03R	7/29/2014 13:11	0.5	0.9	21.9	-2.3	87	89	-1.9	14	6
MW03R	8/29/2014 10:14	0.0	0.6	20.4	-2.8	101	97	-1.0	8	40
MW03R	9/11/2014 12:08	0.1	0.5	21.5	-3.9	91	78	-3.8	3	1
MW03R	9/18/2014 14:01	0.2	0.7	20.9	-3.0	103	93	-2.5	47	48
MW03R	10/20/2014 11:00	0.3	1.4	20.9	-0.6	89	85	-0.3		
MW03R	11/17/2014 13:08	10.7	6.1	18.0	-0.3	94	80	-0.2	17	20
MW03R	12/12/2014 12:47	60.0	39.9	0.0	-0.6	92	97	-0.9	39	43
MW03R	1/22/2015 9:54	61.6	38.3	0	-1.4	83	89	-1.6	41	50
MW03R	2/25/2015 11:53	60	39.9	0	-1.2	91	95	-1.3	43	44
MW03R	3/18/2015 13:25	0.6	1.9	21.1	-5.9	96	93	-3.4	50	22
MW03R	3/18/2015 13:27	0	0.6	21.7	-4.4	88	90	-3.9	34	24
MW03R	4/1/2015 11:49	0	0.1	21.5	-2.1	91	81	-1.2	10	2



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL -- PERMIT SECTION
P.O. BOX 19506
SPRINGFIELD, ILLINOIS 62794-9506

FOR APPLICANT'S USE

Revision #: 2
Date: 7 / 28 / 03
Page of
Source Designation:

**MINOR PERMIT MODIFICATION
FOR CAAPP PERMIT**

FOR AGENCY USE ONLY

ID NUMBER:

PERMIT #:

DATE:

SOURCE INFORMATION

1) SOURCE NAME:
Cottonwood Hills Recycling and Disposal Facility
10400 Hillstown Road
Marissa, Illinois 62257

2) DATE FORM
PREPARED: April 2015

8) 3) SOURCE ID NO.
(IF KNOWN): 163075AAL

MODIFICATION DATA

4) DESCRIPTION OF PROPOSED CHANGE:

The purpose of the modification is to submit a revised Landfill Gas Collection and Control System Design Plan (GCCS Plan) which removes one landfill gas extraction well (Well MW03R) and a temporary gas collection trench (GT03) from the landfill gas collection system due to declining gas quality and flow rates. The well and temporary trench will be "abandoned" and no longer utilized for gas extraction or monthly compliance monitoring. The attached revised GCCS as-built map of the gas collection system, showing that the well has been decommissioned, has been certified by a registered P.E. as required.

5) SUMMARY OF EMISSIONS RESULTING FROM PROPOSED CHANGE:

N/A -- no increase or decrease in emissions will result from the proposed change.

6) SUMMARY OF NEW APPLICABLE REQUIREMENTS, IF ANY:

None

7) PROPOSED OPERATION DATE:

☒ DATE OF FILING, SPECIFY: April 9, 2015

☐ ON OR AFTER THE DATE THE AGENCY TAKES
FINAL ACTION

☐ OTHER DATE, SPECIFY:

THIS AGENCY IS AUTHORIZED TO REQUIRE THIS INFORMATION UNDER ILLINOIS REVISED STATUTES, 1991, AS AMENDED 1992, CHAPTER 111 1/2, PAR. 1039.5. DISCLOSURE OF THIS INFORMATION IS REQUIRED UNDER THAT SECTION. FAILURE TO DO SO MAY PREVENT THIS FORM FROM BEING PROCESSED AND COULD RESULT IN THE APPLICATION BEING DENIED. THIS FORM HAS BEEN APPROVED BY THE FORMS MANAGEMENT CENTER.

APPLICATION PAGE

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SUMMARY OF MINOR PERMIT MODIFICATION CONTENTS	
8) DOES THE PROPOSED MINOR PERMIT MODIFICATION MEET THE CRITERIA FOR A MINOR PERMIT MODIFICATION, AS DEFINED IN SECTION 39.5(14)(a) OF THE ACT?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
9) DOES THE APPLICATION FOR MINOR PERMIT MODIFICATION INCLUDE THE SOURCE'S SUGGESTED DRAFT PERMIT?	<input checked="" type="checkbox"/> *NA <input type="checkbox"/> YES <input type="checkbox"/> NO *NOTE: NOT APPLICABLE
10) DOES THIS PROPOSED CHANGE REQUIRE A CONSTRUCTION PERMIT?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
11) DOES THE APPLICATION FOR MINOR PERMIT MODIFICATION INCLUDE A PROCESS FLOW DIAGRAM(S) SHOWING THE RELATIONSHIP BETWEEN ALL EMISSION UNITS, AIR POLLUTION CONTROL EQUIPMENT, AND EXHAUST POINTS, IN ACCORDANCE WITH THE INSTRUCTIONS FOR CAAPP APPLICATIONS, IF THESE RELATIONSHIPS ARE ALTERED BY THE PROPOSED CHANGE? NOT APPLICABLE – NO ALTERATIONS	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO No change from original application
12) DOES THE APPLICATION FOR MINOR PERMIT MODIFICATION INCLUDE A DETAILED DESCRIPTION OF EACH PROCESS AFFECTED BY THE PROPOSED CHANGE?	<input checked="" type="checkbox"/> *NA <input type="checkbox"/> YES <input type="checkbox"/> NO *NOTE: NOT APPLICABLE
13a) DOES THE APPLICATION FOR MINOR PERMIT MODIFICATION INCLUDE COMPLETED APPROPRIATE FORMS DESCRIBING ALL INDIVIDUAL EMISSION UNITS AND AIR POLLUTION CONTROL EQUIPMENT AFFECTED BY THE PROPOSED CHANGE, LISTING ALL APPLICABLE REQUIREMENTS AND PROPOSED EXEMPTIONS FOR OTHERWISE APPLICABLE REQUIREMENTS?	<input checked="" type="checkbox"/> *NA <input type="checkbox"/> YES <input type="checkbox"/> NO
b) DOES THE APPLICATION ADDRESS OTHER MODES OF OPERATION FOR WHICH A MODIFICATION IS BEING SOUGHT?	<input checked="" type="checkbox"/> *NA <input type="checkbox"/> YES <input type="checkbox"/> NO
c) DOES THE APPLICATION ADDRESS ALL REASONABLY ANTICIPATED OPERATING SCENARIOS FOR WHICH A MODIFICATION IS BEING SOUGHT?	<input checked="" type="checkbox"/> *NA <input type="checkbox"/> YES <input type="checkbox"/> NO
d) DOES THE APPLICATION IDENTIFY, BY ASSIGNED PAGE NUMBER, ALL FORMS IN THE EXISTING APPLICATION WHICH WILL NO LONGER BE APPLICABLE?	<input checked="" type="checkbox"/> *NA <input type="checkbox"/> YES <input type="checkbox"/> NO
14a) DOES THIS APPLICATION FOR MINOR PERMIT MODIFICATION INCLUDE A FORM CAAPP-292, "FEE DETERMINATION FOR CAAPP PERMIT," HIGHLIGHTING CHANGES IN EMISSIONS FROM THE PROPOSED MODIFICATION? NOT APPLICABLE – NO CHANGE IN EMISSIONS	<input checked="" type="checkbox"/> *NA <input type="checkbox"/> YES <input type="checkbox"/> NO
b) DOES THE APPLICATION INCLUDE A FORM CAAPP-215, "HAZARDOUS AIR POLLUTANT EMISSION SUMMARY," HIGHLIGHTING CHANGES IN HAP EMISSIONS FROM THE PROPOSED MODIFICATION?	<input checked="" type="checkbox"/> *NA <input type="checkbox"/> YES <input type="checkbox"/> NO
c) DOES THE APPLICATION INCLUDE DETAILED CALCULATIONS FOR ALL EMISSION UNITS WHOSE EMISSIONS ARE AFFECTED BY THE PROPOSED CHANGE, AND SHOWING HOW THE FOLLOWING WERE DETERMINED: 1) MAXIMUM AND TYPICAL UNCONTROLLED EMISSION RATES; 2) MAXIMUM AND TYPICAL ACTUAL EMISSION RATES; 3) MAXIMUM AND TYPICAL ALLOWABLE EMISSION RATES PURSUANT TO APPLICABLE RULES; 4) REQUESTED PERMITTED EMISSION RATES; IN TONS PER YEAR AND OTHER APPLICABLE UNITS, IF NECESSARY (E.G., POUNDS PER HOUR, PARTS PER MILLION, GRAINS PER CUBIC FOOT); AND 5) CONTROL EQUIPMENT EFFICIENCIES?	<input checked="" type="checkbox"/> *NA <input type="checkbox"/> YES <input type="checkbox"/> NO
15a) DOES THE APPLICATION FOR MINOR PERMIT MODIFICATION INCLUDE A COMPLETED FORM CAAPP-293, "COMPLIANCE PLAN/SCHEDULE OF COMPLIANCE" FOR EMISSION UNITS AFFECTED BY THE PROPOSED CHANGE(S)?	<input checked="" type="checkbox"/> *NA <input type="checkbox"/> YES <input type="checkbox"/> NO
b) DOES THE APPLICATION INCLUDE A COMPLETED FORM CAAPP-294, "COMPLIANCE PLAN/SCHEDULE OF COMPLIANCE – ADDENDUM FOR NONCOMPLYING EMISSION UNITS" FOR EMISSION UNITS AFFECTED BY THE PROPOSED CHANGE(S)?	<input checked="" type="checkbox"/> *NA <input type="checkbox"/> YES <input type="checkbox"/> NO
c) DOES THE APPLICATION INCLUDE A COMPLETED FORM CAAPP-296, "COMPLIANCE CERTIFICATION" FOR THE EMISSION UNITS AFFECTED BY THE PROPOSED CHANGE(S)?	<input checked="" type="checkbox"/> *NA <input type="checkbox"/> YES <input type="checkbox"/> NO
16) DOES THE APPLICATION FOR MINOR PERMIT MODIFICATION REQUEST A REVISION OF THE OPERATIONAL FLEXIBILITY PROVISIONS FOR THE PROPOSED CHANGE(S) AND INCLUDE THE INFORMATION REQUIRED FOR SUCH REVISION?	<input checked="" type="checkbox"/> *NA <input type="checkbox"/> YES <input type="checkbox"/> NO

* NOT APPLICABLE

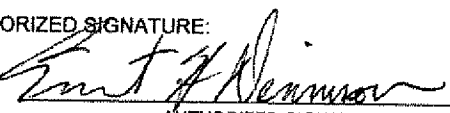
APPLICATION PAGE _____

Printed on Recycled Paper
271-CAAPP

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WM01626

17) HAVE THREE COPIES OF THIS APPLICATION FOR MINOR PERMIT MODIFICATION BEEN SUBMITTED?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
18) DOES THIS APPLICATION FOR MINOR PERMIT MODIFICATION CONTAIN CONFIDENTIAL INFORMATION?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
a) IF YES, HAS SUCH INFORMATION BEEN PROPERLY MARKED AND CLAIMED, AND COPIES OF THE APPLICATION SUITABLE FOR PUBLIC INSPECTION BEEN SUBMITTED?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
b) HAS A COPY OF THIS APPLICATION BEEN SENT DIRECTLY TO USEPA REGION V?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO

SIGNATURE BLOCK	
NOTE: THIS CERTIFICATION MUST BE SIGNED BY A RESPONSIBLE OFFICIAL. APPLICATIONS WITHOUT A SIGNED CERTIFICATION WILL BE RETURNED AS INCOMPLETE.	
19) I CERTIFY UNDER PENALTY OF LAW THAT, BASED ON INFORMATION AND BELIEF FORMED AFTER REASONABLE INQUIRY, THE STATEMENTS AND INFORMATION CONTAINED IN THIS APPLICATION ARE TRUE, ACCURATE AND COMPLETE.	
AUTHORIZED SIGNATURE:	
BY: 	<u>District Engineer</u>
AUTHORIZED SIGNATURE	TITLE OF SIGNATORY
<u>Ernest H. Dennison, P.E.</u>	<u>4, 9, 15</u>
TYPED OR PRINTED NAME OF SIGNATORY	DATE

GROUP PROCESSING	
20) IS GROUP PROCESSING OF THIS APPLICATION BY THE AGENCY REQUESTED?	
	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
IF YES, THE FOLLOWING ADDITIONAL ITEMS MUST BE COMPLETED:	
a) HAS A LIST OF THE SOURCE'S OTHER PENDING MINOR MODIFICATION APPLICATIONS THAT AWAIT GROUP PROCESSING BEEN SUBMITTED?	<input type="checkbox"/> YES <input type="checkbox"/> NO
b) DOES THE MODIFICATION, COMBINED WITH THESE OTHER MINOR MODIFICATION APPLICATIONS, FALL BELOW THE THRESHOLD SET FOR GROUP PROCESSING?	<input type="checkbox"/> YES <input type="checkbox"/> NO
c) WHAT IS THE OVERALL, COMBINED EMISSIONS INCREASE FOR EACH POLLUTANT?	
POLLUTANT	TON/YR

GROUP PROCESSING SIGNATURE BLOCK

NOTE: THIS CERTIFICATION MUST BE SIGNED BY A RESPONSIBLE OFFICIAL. APPLICATIONS WITHOUT A SIGNED CERTIFICATION WILL BE RETURNED AS INCOMPLETE.

21) I CERTIFY UNDER PENALTY OF LAW THAT, BASED ON INFORMATION AND BELIEF FORMED AFTER REASONABLE INQUIRY, THE STATEMENTS AND INFORMATION CONTAINED IN THIS APPLICATION ARE TRUE, ACCURATE AND COMPLETE.

AUTHORIZED SIGNATURE:

BY:



AUTHORIZED SIGNATURE

Ernest H Dennison, PE

TYPED OR PRINTED NAME OF SIGNATORY

District Engineer

TITLE OF SIGNATORY

4 / 9 / 15

DATE

APPLICATION PAGE _____

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271-CAAPP

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WM01628

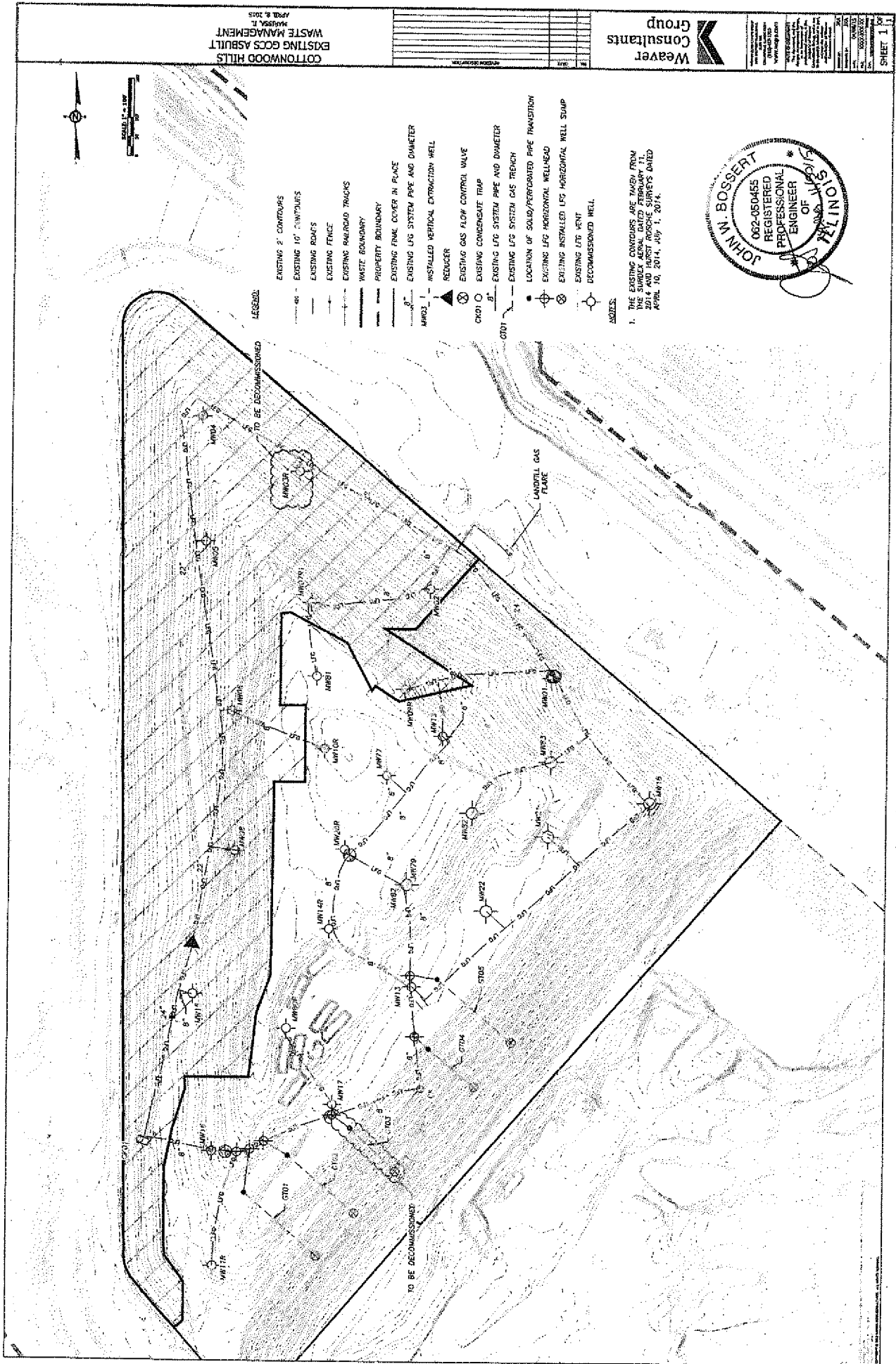
	FOR AGENCY USE ONLY
SUPPLEMENT TO CAAPP	ID NUMBER:
APPLICATION	PERMIT #:
	DATE:

THIS FORM SHALL ACCOMPANY ANY SUPPLEMENT TO A CAAPP APPLICATION, THAT IS, ANY SUBMITTAL OF NEW OR CORRECTED INFORMATION FOR A PENDING CAAPP APPLICATION.

SOURCE INFORMATION	
1) SOURCE NAME: Cottonwood Hills Recycling and Disposal Facility	
2) DATE FORM PREPARED: April 9, 2015	3) SOURCE ID NO. (IF KNOWN): 163075AAL

[illegible]

<p>THIS AGENCY IS AUTHORIZED TO REQUIRE THIS INFORMATION UNDER ILLINOIS REVISED STATUTES, 1991, AS AMENDED 1992, CHAPTER 111 1/2, PAR. 1039.5. DISCLOSURE OF THIS INFORMATION IS REQUIRED UNDER THAT SECTION. FAILURE TO DO SO MAY PREVENT THIS FORM FROM BEING PROCESSED AND COULD RESULT IN THE APPLICATION BEING DENIED. THIS FORM HAS BEEN APPROVED BY THE FORMS MANAGEMENT CENTER.</p>		
	<p>APPLICATION PAGE _____</p> <p>Printed on Recycled Paper 505-CAAPP</p>	<p><u>FOR APPLICANT'S USE</u></p> <p>_____</p>
		<p>Page 1 of 2</p>





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

Received
APR 20 2015

APR 14 2015

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

REPLY TO THE ATTENTION OF:

Ernest H. Dennison
District Engineer
Waste Management of Illinois
Cottonwood Hills Recycling and Disposal Facility
601 Madison Road
East St. Louis, Illinois 62201

RE: Response to Cottonwood Hills Recycling and Disposal Facility Request

Dear Mr. Dennison:

The U.S. Environmental Protection Agency has received and reviewed Waste Management of Illinois, Inc.'s (Waste Management) July 22, 2014 request for Cottonwood Hills Recycling and Disposal Facility (Cottonwood Hills) located in Marissa, Illinois which is subject to 40 C.F.R. Part 60, Subpart WWW.

Waste Management's letter requested an alternative operating procedure for landfill gas extraction well MWC3R, based on Waste Management's determination that the well has low flow due to minimal gas generation in the area of the well. This alternative operating procedure would be used as an alternative to decommissioning the well. For the reasons stated below, EPA approves your request.

40 C.F.R. §§ 60.753(a-d) of the Landfill NSPS states:

Each owner or operator of an MSW landfill with a gas collection and control system used to comply with the provisions of § 60.752(b)(2)(ii) of this subpart shall: (a) Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for: (1) 5 years or more if active; or (2) 2 years or more if closed or at final grade; (b) Operate the collection system with negative pressure at each wellhead except under the following conditions: ... (c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 °C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. ... (d) Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. ...

40 C.F.R. § 60.755(a) of the Landfill NSPS states:

Except as provided in § 60.752(b)(2)(i)(B), the specified methods in paragraphs (a)(1) through (a)(6) of this section shall be used to determine whether the gas collection system is in compliance with § 60.752(b)(2)(ii). ... (3) For the purpose of demonstrating whether the

gas collection system flow rate is sufficient to determine compliance with § 60.752(b)(2)(ii)(A)(3), the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. ... (5) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in § 60.753(c). ...

40 C.F.R. §§ 60.755(b-d) of the Landfill NSPS states:

(b) For purposes of compliance with § 60.753(a), each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in § 60.752(b)(2)(i). ... (c) The following procedures shall be used for compliance with the surface methane operational standard as provided in § 60.753(d). ... (d) Each owner or operator seeking to comply with the provisions in paragraph (c) of this section shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices: ...

Waste Management has determined that well MW03R has gas flow rates that are so low that applying even minimal vacuum will result in air infiltration that causes exceedances of the applicable oxygen concentration limit. Shutting well MW03 down will prevent the air filtration that leads to the oxygen exceedances, but it is likely to cause positive pressure in the wellhead as landfill gas builds up. Therefore, simultaneously complying with both the negative pressure and oxygen concentration limits in 40 C.F.R. § 60.753 can be difficult for wells where gas flow rates have declined over time.

Under provisions in 40 C.F.R. § 60.753(b)(3), wells that experience positive pressure after being shutdown to accommodate declining landfill gas flow rates can be decommissioned if permission is granted by the Administrator. As an alternative to decommissioning well MW03R under these provisions, Waste Management has proposed to make the following changes to its standard operating procedure for well MW03R:

1. If oxygen concentrations do not decline to acceptable levels after more than one hour of reduced vacuum, well MW03R will be shut off until the gas quality recovers.
2. The monthly monitoring required by 40 C.F.R. § 60.755 will be conducted for well MW03R, but positive pressure or elevated oxygen concentrations will not be considered exceedances of the operating limits in 40 C.F.R. § 60.753.
3. If monthly monitoring indicates that pressure has built up in the well and the oxygen concentration still exceeds 5%, well MW03R will be opened to apply vacuum and relieve the pressure and it will be shutdown until it is monitored again the following month.
4. If the monthly monitoring indicates that gas flow and/or quality has improved (i.e., the oxygen concentration has dropped below 5% with vacuum applied), well MW03R will be brought back on line and maintained under vacuum until gas quality declines again.
5. The facility will continue to conduct quarterly surface scans as required under 40 C.F.R. § 60.755 including the area around well MW03R. The standard procedures and remediation steps will be taken for any surface scan readings that exceed 500 ppm.

If you have any further questions please contact Nathan Frank of my staff at 312-886-3850.

Sincerely,

A handwritten signature in cursive script that reads "Sara Breneman".

Sara Breneman
Chief
Air Enforcement and Compliance Assurance Branch

cc: Eric Jones, Manager
Bureau of Air, Compliance Unit
Illinois Environmental Protection Agency

CERTIFICATE OF MAILING

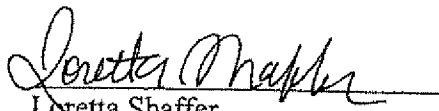
I, Loretta Shaffer, certify that I sent a Response to Request for Cottonwood Hills Recycling and Disposal Facility Pursuant to the Clean Air Act by Certified Mail, Return Receipt Requested, to

Ernest H. Dennison
District Engineer
Waste Management of Illinois
Cottonwood Hills Recycling and Disposal Facility
601 Madison Road
East St. Louis, Illinois 62201

I also certify that I sent a copy of the Response to Request for Cottonwood Hills Recycling and Disposal Facility Pursuant to the Clean Air Act by First Class Mail to:

Eric Jones, Manager
Bureau of Air, Compliance Unit
Illinois Environmental Protection Agency
P.O. Box 19506
Springfield, Illinois 62794

On the 15 day of April 2015.


Loretta Shaffer
Program Technician
AECAB, PAS

Certified Mail Receipt Number: 7014 2870 0001 9580 5050

ATTACHMENT 3

**COTTONWOOD HILLS GAS COLLECTION SYSTEM
REPORTING FOR NON OPERATING PERIODS OF CONTROL DEVICE
3000 SCFM OPEN FLARE**

Time Out of Service	Description of Outage	Time Back In Service	Down Time Hours	Performed By
1/8/15 1:46 PM	Knockout pot sensor failed, replaced sensor	1/8/15 3:08 PM	1.4	MM
1/8/15 11:24 PM	Ran out of nitrogen	1/9/15 11:48 AM	12.4	MM
3/3/15 11:22 AM	Cleaned clogged knockout pot drain line	3/3/15 1:06 PM	1.7	MM
6/2/15 8:54 AM	Header work and concrete pad poured for new blower	6/2/15 6:46 PM	9.9	MM
6/9/15 5:36 PM	Install new centrifugal blower and VFD	6/9/15 10:42 PM	5.1	MM
6/10/15 9:58 AM	Install new centrifugal blower and VFD	6/10/15 10:50 PM	12.9	MM
6/11/15 1:30 PM	Programming new VFD	6/11/15 4:14 PM	2.7	MM
TOTAL			46.1	

Per Sec. 60.757 : "Each owner or operator...shall include the following information with the annual report... description and duration of all periods when the control device was not operating for a period exceeding one hour and length of time the control device was not operating."

Verified by :
Mike McElvain Gas Technician

ATTACHMENT 4

COTTONWOOD HILLS RECYCLING AND DISPOSAL FACILITY
 QUARTERLY SURFACE SCAN MONITORING EXCEEDENCES
 FOR JANUARY 1, 2015 TO JUNE 30, 2015 REPORT PERIOD

Quarter	Date	Location		Methane Conc ppm	Corrective Action	Date	Methane Conc ppm	Additional Corrective Action	Date	Methane Conc ppm
		North	West							
1st	02/25/15			All < 160	None Required			NA		
2nd	05/27/15			All < 180	None Required			NA		